

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A radio network controller including a plurality of protocol layers, which comprises a plurality of blocks each formed of protocol layers obtained by segmenting said plurality of protocol layers and a ~~UDP~~(User Datagram Protocol (UDP)/~~IPv6~~ {Internet Protocol version 6 (IPv6) layer which connects said plurality of blocks.

2. (currently amended): The radio network controller according to claim 1, wherein said plurality of protocol layers include at least a ~~PDCP~~(Packet Data Convergence Protocol (PDCP) layer, an ~~RLC~~{a Radio Link Control (RLC) layer which executes ~~U~~(User (U)-plane data segmentation and concatenation, a ~~MAC~~(Medium Access Control (MAC) layer and an ~~FP~~{a Frame Protocol (FP) layer.

3. (currently amended): The radio network controller according to claim 2, wherein said plurality of protocol layers are segmented to execute ~~QoS~~(Quality of Service (QoS) control taking said RLC layer into consideration.

4. (original): The radio network controller according to claim 2 or claim 3, comprising a filtering function of detecting a start packet and an end packet each set in advance from said U-plane data to input data with said start packet and end packet excluded to a buffer and abandon the data according to the detection result.

5. (currently amended): A ~~QoS~~-(Quality of Service (QoS)) control method of a radio network controller including a plurality of protocol layers, where said plurality of protocol layers are segmented into blocks to execute QoS control taking ~~an RLC~~-(a Radio Link Control (RLC)) layer which executes ~~U~~-(User (U))-plane data segmentation and concatenation into consideration and connect these blocks by a ~~UDP~~-(User Datagram Protocol (UDP)/~~IPv6~~-(Internet Protocol version 6 (IPv6)) layer.

6. (currently amended): The QoS control method according to claim 5, wherein said plurality of protocol layers include at least a ~~PDCCP~~-(Packet Data Convergence Protocol (PDCCP)) layer, said RLC layer, a ~~MAC~~-(Medium Access Control (MAC)) layer and ~~an FP~~-(a Frame Protocol (FP)) layer.

7. (original): The QoS control method according to claim 5 or claim 6, wherein by the control of a filtering function of detecting a start packet and an end packet each set in advance

from said U-plane data, data with said start packet and end packet excluded is input to a buffer and abandoned according to the detection result.

8. (new): The radio network controller according to claim 1, wherein said plurality of blocks comprises at least three of said blocks, wherein each of said plurality of blocks are connected by one of a plurality of UDP/IPv6 layers comprising said UDP/IPv6 layer.

9. (new): The QoS control method according to claim 5, wherein said plurality of blocks comprises at least three of said blocks, wherein each of said plurality of blocks are connected by one of a plurality of UDP/IPv6 layers comprising said UDP/IPv6 layer.

10. (new): The radio network controller according to claim 3, wherein the QoS control is executed based on the U-plane data segmentation and concatenation executed in the RLC layer.

11. (new): The QoS control method according to claim 5, wherein the QoS control is executed based on the U-plane data segmentation and concatenation executed in the RLC layer.

12. (new): The radio network controller according to claim 2, further comprising a filtering function which detects a start packet and an end packet in said U-plane data, performs a

comparison between a size of input data which exists between the start and end packets and a free capacity of a Quality of Service (QoS) buffer, and allows or abandons the input data based on a result of the comparison.

13. (new): The QoS control method according to claim 5, further comprising:

detecting a start packet and an end packet in said U-plane data;

performing a comparison between a size of input data which exists between the start and end packets and a free capacity of a QoS buffer; and

allowing or abandoning the input data based on a result of the comparison.

14. (new): The radio network controller according to claim 12, wherein the filtering function allows the input data to be input to the QoS buffer if the size of the input data is smaller than the free capacity of the QoS buffer, and abandons the input data if the size of the input data is larger than the free capacity of the QoS buffer.

15. (new): The QoS control method according to claim 13, wherein the allowing of the input data comprises allowing the input data to be input to the QoS buffer if the size of the input data is smaller than the free capacity of the QoS buffer, and the abandoning of the input data is performed if the size of the input data is larger than the free capacity of the QoS buffer.